SHEET INDEX

CONTENTS	SHEET NO.	ISSUE NO. 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
SHEET INDEX SUPPORTING INFORMATION	A1	1	2																							
APPARATUS INDEX LEAD INDEX OPTION INDEX	A2	1	2																							
FS 1 STEERING AND CUT-THROUGH CKT	B1	1	2																							
FS 2 CONTROL & MONITOR CKT	B2	1	2																							
APP FIG. 1	C1	1	2																							
CIRCUIT NOTES EQUIPMENT NOTES INFORMATION NOTES	D1	1	2																							

CONTENTS	SHEET NO.	ISSUE NO. 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
CIRCUIT REQUIREMENTS TABLE	F1	1	2																							
CAD 1-4	G1	1	2																							
CAD 5	G2	1	2																							

DWG BASIC	CD ISSUE	DATE	ILLUM	APPD
1	1	8-6-79	JRW JRW	WO
2A	2A	8-27-79	JRW JRW	WO

SUPPORTING INFORMATION

CATEGORY	NO.
EQUIPMENT DWG	J99359AS
EQUIPMENT DESIGN REQTS	J99359 (801-408-153)

SHEET INDEX NOTES

1. WHEN CHANGES ARE MADE IN THIS DRAWING ONLY THOSE SHEETS AFFECTED WILL BE REISSUED.
2. THIS SHEET INDEX WILL BE REISSUED AND BROUGHT UP TO DATE EACH TIME ANY SHEET OF THE DRAWING IS REISSUED, OR A NEW SHEET IS ADDED.
3. THE ISSUE NUMBER ASSIGNED TO A CHANGED OR NEW SHEET WILL BE THE SAME ISSUE NUMBER AS THAT OF THE SHEET INDEX.
4. SHEETS THAT ARE NOT CHANGED WILL RETAIN THEIR EXISTING ISSUE NUMBER.
5. THE LAST ISSUE NUMBER OF THE SHEET INDEX IS RECOGNIZED AS THE LATEST ISSUE NUMBER OF THE DRAWING AS A WHOLE.

NOTICE – NOT FOR USE OR DISCLOSURE OUTSIDE THE BELL SYSTEM EXCEPT UNDER WRITTEN AGREEMENT.

IN19

COMMON SYSTEMS

SWITCHED MAINTENANCE ACCESS SYSTEM NO. 5B

INTERFACE CIRCUIT

AT&TCO STANDARD

DWG SIZE 6S

ISSUE 2A

BELL LABORATORIES

SD-99641-01-

A1 9 SHEETS

5-7800 (9-79) PRINTED IN U.S.A.

APPARATUS INDEX

DESIG	LOCATION FS	APP FIG	EQPT
RELAYS			
6W	2A3	1	
CTT	1E9	1	
DF1	1E8	1	
DF2	1E6	1	
LT	2E3	1	
SEL	2E3	1	
SPAR	2G3	1	
SPAT	2G3	1	
SPBR	2F3	1	
SPBT	2F3	1	
SPC	2F1	1	
CAPACITORS			
MA	2B6	1	
MB	2D6	1	
DIODES			
6W	2A3	1	
CT	2E2	1	
CTT	1E9	1	
DF1	1E8	1	
DF2	1E6	1	
LT	2E3	1	
LTS	2F2	1	
SEL	2E3	1	
SP	2F2	1	
SPC	2F1	1	
TRANSFORMERS			
MA	2B6	1	
MB	2D6	1	

LEAD INDEX

DESIG.	LOCATION FS	LOCATION CAD
CONTROLLER & CONNECTOR CKT		
A( )	2D9	1CO,1D2
B( )	2D9	1CO,1D2
C( )	2D9	1CO,1D2
CC( )	2C1	1D2
D( )	2D9	1CO,1D2
E( )	2D9	1CO,1D2
F( )	2D9	1CO,1D2
G( )	2D9	1CO,1D2
H( )	2D9	1CO,1D2
NG( )	1F9	1CO,1D2
J( )	2D9	1D2
K( )	2D9	1D2
L( )	2D9	1D2
M( )	2D9	1D2
N( )	2C1	1CO,1D2
R( )	1F9	1CO,1D2
S( )A0-1	2C1	2E0
S( )A0-2	2C1	2E0
S( )A1-1	2C1	2E0
S( )A1-2	2C1	2E0
S( )B0-1	2C1	2E0
S( )B0-2	2C1	2E0
S( )B1-1	2C1	2E0
S( )B1-2	2C1	2E0
S( )C0-1	2C1	2E0
S( )C0-2	2C1	2E0
S( )C1-1	2C1	2E0
S( )C1-2	2C1	2E0

DESIG	LOCATION FS	LOCATION CAD
RTS 5A REMOTE TEST PORT		
CC( )		
CM1( )		
CM2( )		
EL( )		
ENAB( )		
FC( )		
GL( )		
HC( )		
H OR H1( )	1E0	1D8
MD( )		
ML( )		
NC( )		
RC( )		
R1( )		
RR( )		
SEL( )		
TC( )		
T1( )		

DESIG	LOCATION FS	LOCATION CAD
SM&S NO. 5A LOCAL TEST PORTS AND DISTRIBUTION CKT		
CC( )	1E0	1D8
CM1( )	1A3,1E0	1D5,1D8
CM2( )	1A3,1E0	1D5,1D8
EL( )	1E0	1D8
EO( )	1A3,1E0	1D5,1D8
EL( )	1A3,1E0	1D5,1D8
ENAB( )	1A3,1E0	1D5,1D8
FC( )	1E0	1D8
GL( )	1E0	1D8
HC( )	1E0	1D8
H OR H1( )	1A3,1E0	1D5,1D8
MD( )	1A3,1E0	1D5,1D8
ML(.)	1A3,1E0	1D5,1D8
NC( )	1E0	1D8
RC( )	1A3,1E0	1D5,1D8
R1( )	1A3,1E0	1D5,1D8
RR( )	1E0	1D8
SEL( )	1E0	1D8
TC( )	1A3,1E0	1D5,1D8
T1( )	1A3,1E0	1D5,1D8

OPTION INDEX

APP DR WRG	RATED ON ISSUE	REF NOTES	LOCATION

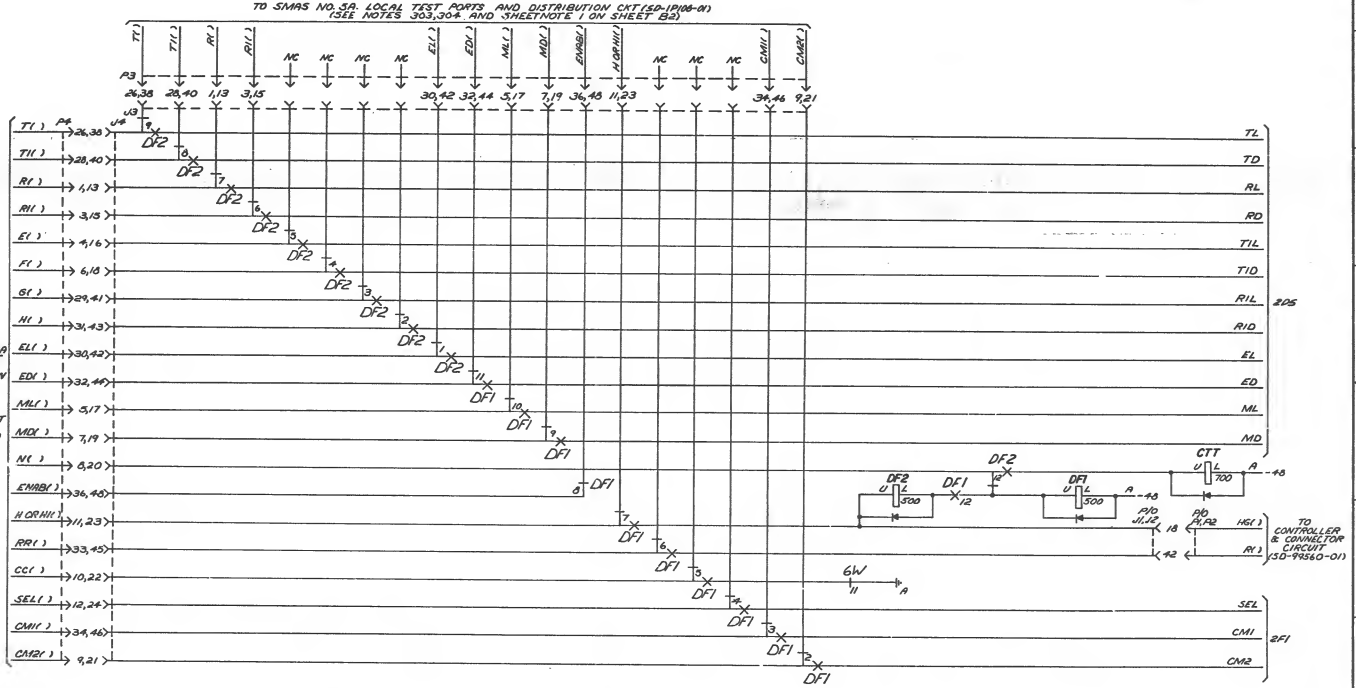
INTERFACE CIRCUIT	DWG SIZE 4S	ISSUE 2A
BELL LABORATORIES	SD-99641-01-	A2

FS I

STEERING AND CUT-THROUGH CKT

NOTES:

1. THE ( ) IN THE LEAD DESIGNATION WILL TAKE THE SAME NUMBER AS THE TEST PORT. eg LEAD T( ) CONNECTED TO TEST PORT 4 WILL BE DESIGNATED T(4).

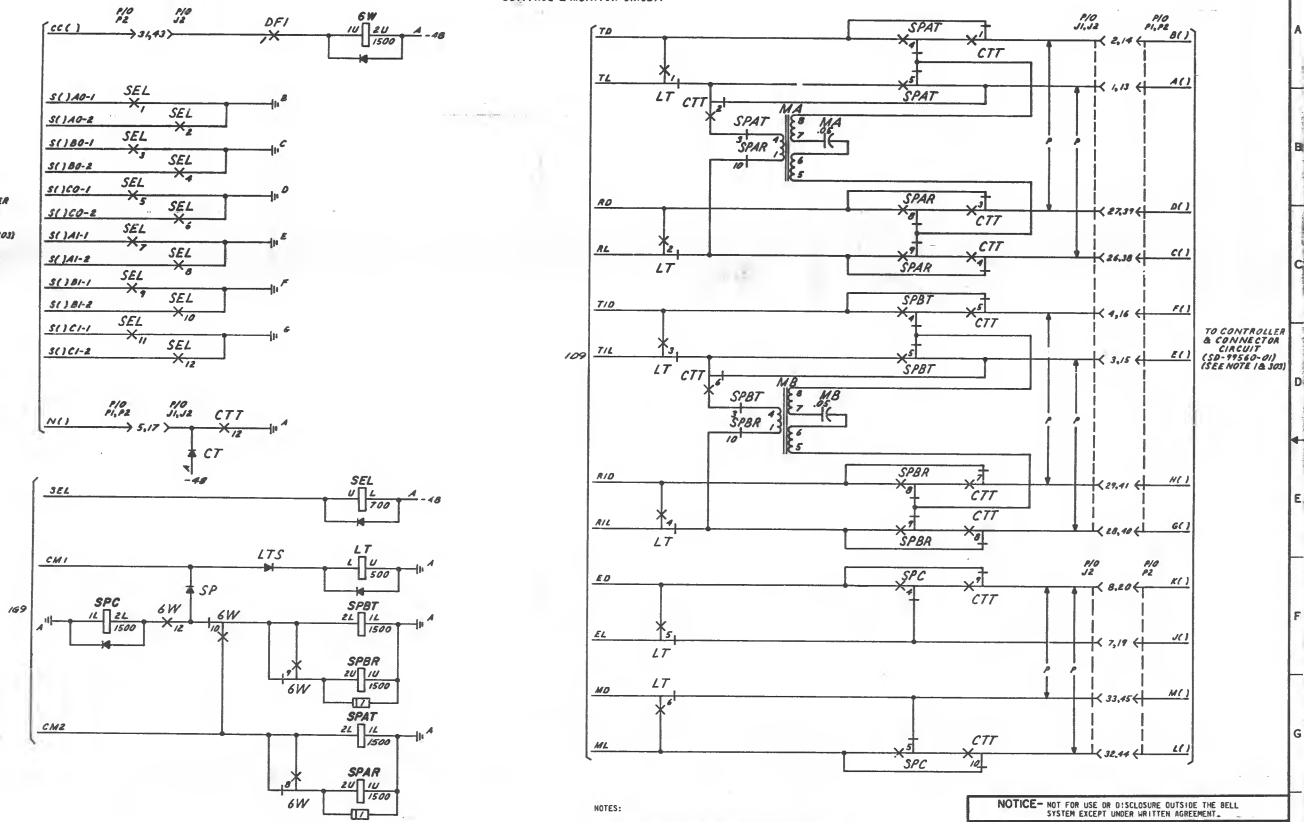


NOTICE- NOT FOR USE OR DISCLOSURE OUTSIDE THE BELL SYSTEM EXCEPT UNDER WRITTEN AGREEMENT.

INTERFACE CIRCUIT		DWG SIZE 6S	ISSUE 2A
BELL LABORATORIES	SD-99641-01		-B1

FS 2

CONTROL & MONITOR CIRCUIT



NOTES:

1. THE ( ) IN THE LEAD DESIGNATION WILL TAKE THE SAME NUMBER AS THE INTERFACE CIRCUIT. eg LEAD B( ) CONNECTED TO INTERFACE CIRCUIT 4 WILL BE DESIGNATION B(4).

NOTICE- NOT FOR USE OR DISCLOSURE OUTSIDE THE BELL SYSTEM EXCEPT UNDER WRITTEN AGREEMENT.

INTERFACE CIRCUIT		DWG SIZE: 65	ISSUE: 2A
BELL LABORATORIES	SD-99641-01-		82

APP FIG.1

RELAY	MTD/W(SPC)																				MTD/W (6W)		
DESIG	6W		CTT		DF1		DF2		LT				SEL		SPAR		SPAT		SPBM	SPBT		SPC	DESIG
CODE	1/2AK47		AJ12		AJ81		AJ81		AJ81				AJ12		AK47				AK47			1/2AK47	CODE
OPTION	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	CONT ARR	LOC	OPTION
12	M	2F2	EBM	2D2	EBM	1E7	EBM	1E7	EBM				EBM	2D2	M				M				12
11	EBM	1F6	EBM		EBM	1E3	EBM		EBM				EBM	2D1	EBM				EBM				11
10	EBM	2F2	EBM	2G7	EBM	1E4	EBM		EBM				EBM	2C2	EBM	2D6			EBM	2D6			10
9	EMB	2D3	EBM	2E7	EBM	1E4	EBM	1C1	EBM				EBM	2C1	EMB	2C7			EMB	2E7			9
8	EMB	2H3	EBM	2E7	EBM	1E4	EBM	1C1	EBM				EBM	2C2	EMB	2D7			EMB	2E7			8
7			EBM	2+7	EBM	1F6	EBM	1C2	EBM				EBM	2C1									7
6			EBM	2D5	EBM	1F5	EBM	1C2	EBM	2G5			EBM	2C2									6
5			EBM	2C7	EBM	1F5	EBM	1C2	EBM	2F5			EBM	2B1'			EMB	2B7			EMB	2G7	EMB	2G7	5
4			EBM	2C7	EBM	1G5	EBM	1D2	EBM	2E5			EBM	2B2			EMB	2A7			EMB	2C7	EMB	2F7	4
3			EBM	2C7	EBM	1G5	EBM	1D3	EBM	2D5			EBM	2B1			EBM	2B6			EBM	2D6	EBM		3
2			EBM	2B5	EBM	1G6	EBM	1D3	EBM	2C5			EBM	2B2			EBM				EBM		EBM		2
1			EBM	2A7	EBM	2A2	EBM	1D5	EBM	2B5			EBM	2B1			M				M		M		1
COIL		2A3		1E9		1E8		1E6		2E3				2E3		2G3		2G3		2F3		2F3		2F1	COIL

CAPACITOR

DESIG	LOC	CODE
MA	2B6	KS-20400 L2, 0.05
MB	2D6	KS-20480 L2, 0.05

DIODE

DESIG	LOC	CODE
6W	2A3	533A
CT	2E2	533F
CTT	1E9	533A
DF1	1E8	533A
DF2	1E6	533A
LT	2E3	533A
LTS	2F2	533F
SEL	2E3	533A
SP	2F2	533F
SPC	2F1	533A

NETWORK

DESIG	LOC	CODE
SPAR	2G3	185A
SPBR	2F3	165A

TRANSFORMER

DESIG	LOC	CODE
MA	2B6	2536AE
MB	2D6	2536AE

NOTICE- NOT FOR USE OR DISCLOSURE OUTSIDE THE BELL SYSTEM EXCEPT UNDER WRITTEN AGREEMENT.

INTERFACE CIRCUIT

DWG SIZE 6S

ISSUE 2A

BELL LABORATORIES SD-99641-01- C1

CIRCUIT NOTES:

101.

DESIG	FUSE AMP	POTENTIAL	ONE PER
A	1-1/3	-48	CKT
A		GRD	CKT
B		GRD	CKT
C		GRD	CKT
D		GRD	CKT
E		GRD	CKT
F		GRD	CKT
G		GRD	CKT

BATTERY SYMBOL	VOLTAGE RANGE
-48	-45V-50V

102.

FEATURE OR OPTION	PROVIDE		
	APP. FIG.	APP OR HRG	QUANTITY
INTERFACE CIRCUIT	1		ONE PER TEST PORT (MAX 20)

CIRCUIT NOTES: (CONT)

103.

RECORD OF APP FIGURES, WIRING AND APPARATUS CHANGES							
CHANGED ON ISS	IF JOB RECORDS DO NOT SPECIFY	THIS OPTION WAS FURN	SEE NOTE	USE IN CIRCUIT		
				STD	A&M	MD

104.

NETWORK VALUES		
NETWORK NO.	RESISTANCE IN OHMS	CAPACITANCE IN UF
1	47Ω	0.11

EQUIPMENT NOTES:

201. CONNECTORIZED CABLES SHALL BE OF THE A25C TYPE OR EQUIVALENT TO MATE WITH CORRESPONDING CONNECTORS ON J99359AS-1 AND OTHER EQUIPMENTS. LENGTH SHALL BE SPECIFIED BY THE JOB SPECIFICATION.

INFORMATION NOTES:

301. UNLESS OTHERWISE SPECIFIED;
RESISTANCE VALUES ARE IN OHMS,
CAPACITANCE VALUES ARE IN MICROFARADS.
VALUES PRECEDED BY THE SYMBOL + (PLUS) OR
- (MINUS) ARE IN VOLTS.

302. INTERFACE CIRCUITS WILL BE NUMBERED CONSECUTIVELY FROM 0 TO 19.

303. FOR ASSIGNING CONNECTIONS FROM INTERFACE CIRCUITS TO TEST PORTS (SD-1P106-01 OR SD-1P108-01) AND THE CONTROLLER AND CONNECTOR CIRCUIT (SD-99560-01)
INTERFACE CIRCUIT 0 IS CONNECTED TO TEST PORT 1 AND LEVEL 0 OF SWITCH CONNECTOR 0-0, INTERFACE CIRCUIT 1 IS CONNECTED TO TEST PORT 2 AND LEVEL 1 OF SWITCH CONNECTOR 0-0 - - - INTERFACE CIRCUIT 9 IS CONNECTED TO TEST PORT 10 AND LEVEL 9 OF SWITCH CONNECTOR 0-0.
INTERFACE CIRCUIT 10 IS CONNECTED TO TEST PORT 11 AND LEVEL 0 OF SWITCH CONNECTOR 0-0A, - - - INTERFACE CIRCUIT 19 IS CONNECTED TO TEST PORT 20 AND LEVEL 9 OF SWITCH CONTROL 0-0A.

304. FOR ASSIGNING CONNECTIONS FROM INTERFACE CIRCUITS TO THE LOCAL TEST PORT AND DISTRIBUTION CIRCUIT (SD-1P106-01)
INTERFACE CIRCUIT 0 IS CONNECTED TO THE STAGE ONE DISTRIBUTION NETWORK MODULE 0 VERTICAL 0, INTERFACE CIRCUIT 1 IS CONNECTED TO THE STAGE ONE DISTRIBUTION NETWORK MODULE 0 VERTICAL 1, - - - INTERFACE CIRCUIT 9 IS CONNECTED TO THE STAGE ONE DISTRIBUTION NETWORK MODULE 0 VERTICAL 9, INTERFACE CIRCUIT 10 IS CONNECTED TO THE STAGE ONE DISTRIBUTION NETWORK MODULE 1 VERTICAL 0, - - - INTERFACE CIRCUIT 19 IS CONNECTED TO THE STAGE ONE DISTRIBUTION NETWORK MODULE 1 VERTICAL 9.

NOTICE- NOT FOR USE OR DISCLOSURE OUTSIDE THE BELL SYSTEM EXCEPT UNDER WRITTEN AGREEMENT.

INTERFACE CIRCUIT

DWG SIZE	ISSUE
6S	2A

BELL LABORATORIES | SD-99641-01- | D1

CIRCUIT REQUIREMENTS

APPARATUS DESIG	APPARATUS CODE	APPARATUS OPT	APPARATUS FIG.		MECH REQT BSP FIG.	MECH REQT CONT PRES	MECH REQT ARM. TRVL.	CIRCUIT PREPARATION BLOCK OR INSULATE	CIRCUIT PREPARATION TEST CLIP DATA CONN BAT.	CIRCUIT PREPARATION TEST CLIP DATA CONN GRD	TEST SET PREP	SEE TEST NOTE	DIRECT CURRENT FLOW REQT TEST WDG	DIRECT CURRENT FLOW REQT TEST FOR	DIRECT CURRENT FLOW REQT TEST AFTER SOAK MA	DIRECT CURRENT FLOW REQT TEST MA	DIRECT CURRENT FLOW REQT READJ MA	REMARKS
RELAY																		
6W	1/2AK47				202					1U(6W)	GRD	1		0		13.2	12.5	MTD WITH (SPC)
CTT	AJ12				220					U(CTT)	GRD			0		43	40.5	
DF1	AJ81				220					U(DF1)	GRD			0		24.5	23	
DF2	AJ81				220				L(DF2)	U(DF2)	B/G			0		24.5	23	
LT	AJ81				270				L(LT)		BAT.			0		24.5	23	
SEL	AJ12				220					U(SEL)	GRD			0		43	40.5	
SPAR	1/2AK47				202			@(6W)	2U(SPAR)		BAT.	1		0		13.2	12.5	MTD WITH (SPAT)
SPAT	1/2AK47				202			@(6W)	2L(SPAT)		BAT.	1		0		13.2	12.5	MTD WITH (SPAR)
SPBR	1/2AK47				202			9(6W)	2L(SPBR)		BAT.	1		0		13.2	12.5	MTD WITH (SPBT)
SPBT	1/2AK47				202			9(6W)	2L(SPBT)		BAT.	1		0		13.2	12.5	MTD WITH (SPBR)
SPC	1/2AK47				202				2L(SPC)		BAT.	1		0		13.2	12.5	MTD WITH (6W)

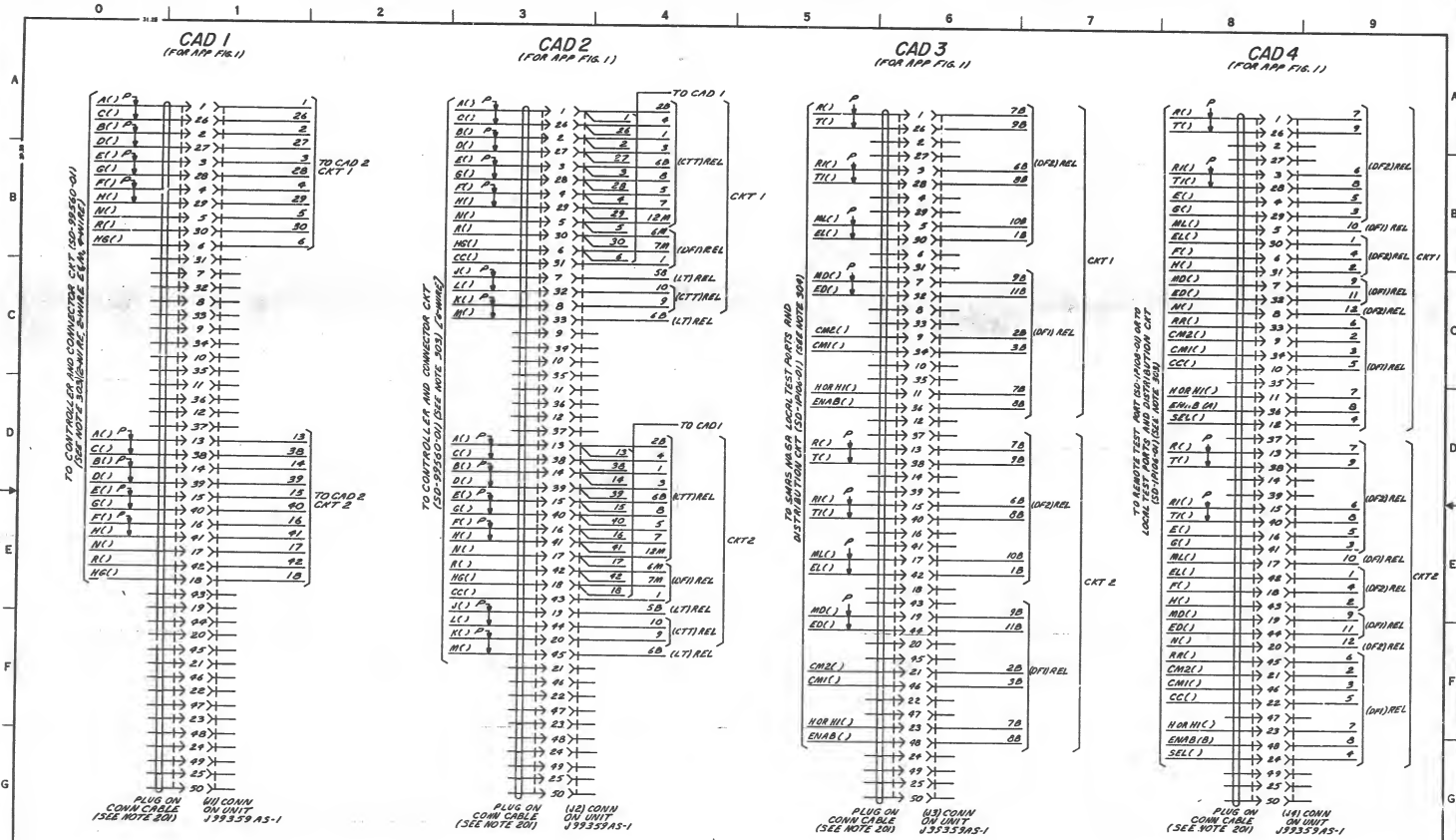
TEST NOTES:

1. ARMATURE BACK TENSION MINIMUM 20 GRAMS READJUST: 15 GRAM TEST.

DRAWING ISSUE

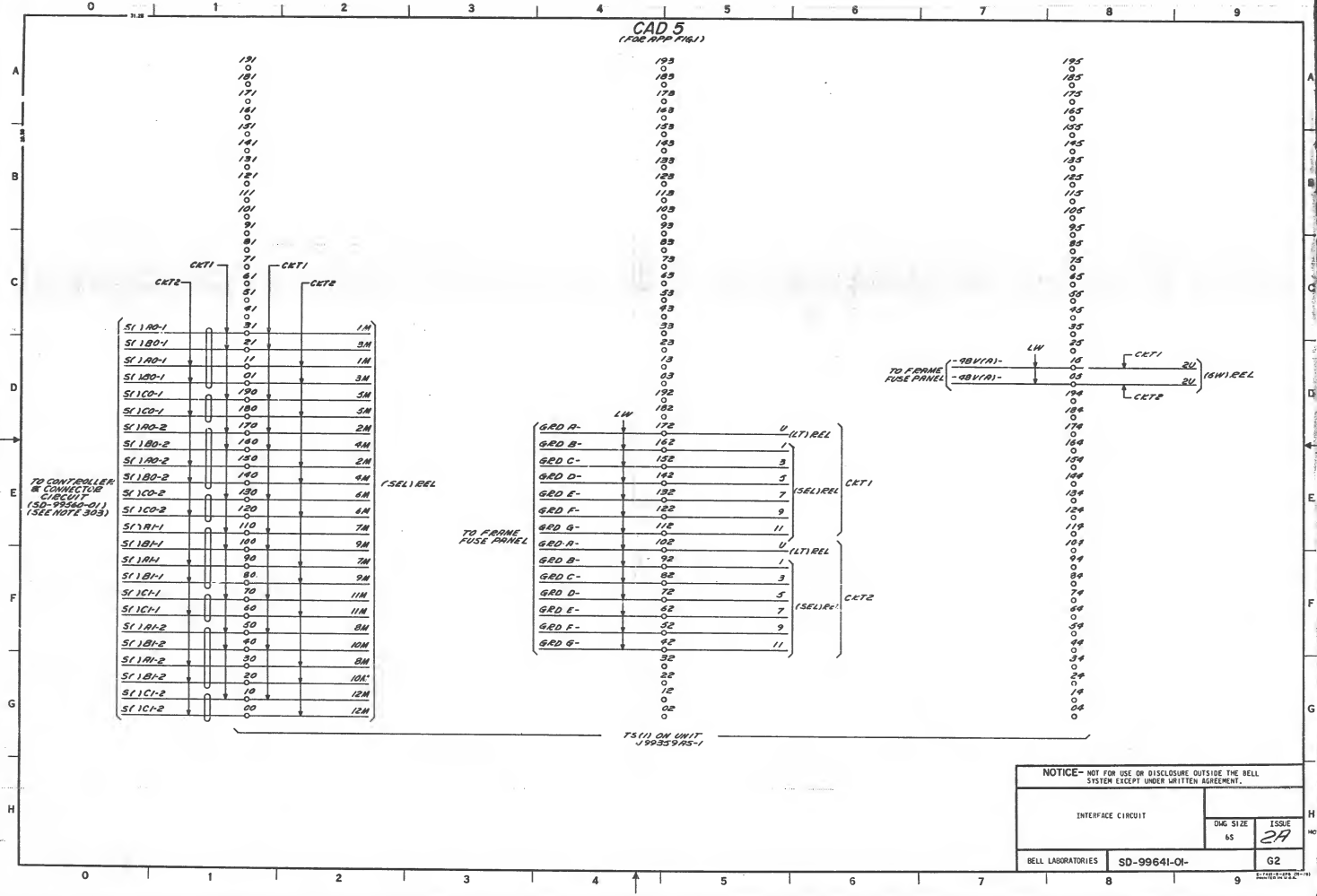
ISSUE 2A NO

INTERFACE CIRCUIT	SD-99641-01-FI
BELL TELEPHONE LABORATORIES INCORPORATED	6S



NOTICE- NOT FOR USE OR DISCLOSURE OUTSIDE THE BELL SYSTEM EXCEPT UNDER WRITTEN AGREEMENT.

INTERFACE CIRCUIT		DWG SIZE 65	ISSUE 2A
BELL LABORATORIES	SD-99641-01-		GI



NOTICE- NOT FOR USE OR DISCLOSURE OUTSIDE THE BELL SYSTEM EXCEPT UNDER WRITTEN AGREEMENT.

INTERFACE CIRCUIT		DWG SIZE 6S	ISSUE 2A
BELL LABORATORIES	SD-99641-01-		G2